

REMARKS

The Official Action mailed May 31, 2007, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on April 4, 2004; June 30, 2004; October 12, 2004; January 10, 2005; January 27, 2005; March 3, 2005; March 14, 2005; May 17, 2005; October 25, 2005; December 8, 2005; March 16, 2006; May 4, 2006; September 8, 2006; September 18, 2006; and March 5, 2007.

Claims 39-61 and 66-69 were pending in the present application prior to the above amendment. Independent claims 41, 42, 45, 46, 49, 50, 53, 54, 57 and 58 have been canceled without prejudice or disclaimer, independent claims 39, 40, 43, 44, 47, 48, 51, 52, 55 and 56 have been amended to better recite the features of the present invention, and dependent claims 59-61 and 66-69 have been amended to correct the claim dependency in light of the cancellation of the above-referenced claims. Accordingly, claims 39, 40, 43, 44, 47, 48, 51, 52, 55, 56, 59-61 and 66-69 are now pending in the present application, of which claims 39, 40, 43, 44, 47, 48, 51, 52, 55 and 56 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 3 of the Official Action rejects claims 39-61 and 66-69 under 35 U.S.C. § 112, first paragraph, asserting that “[t]he application as originally filed does not specifically support the claim limitation ‘... an uneven surface’” (page 2, Paper No. 20070525). In response, independent claims 39, 43, 47, 51 and 55 have been amended to recite a pair of resinous substrates facing each other and each having an uneven surface, and independent claims 40, 44, 48, 52 and 56 have been amended to recite a pair of flexible substrates facing each other and each having an uneven surface. The Applicant respectfully submits that amended claims 39, 40, 43, 44, 47, 48, 51, 52,

55 and 56 are adequately described and supported in the specification. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Paragraphs 5-9 of the Official Action reject claims 39-61 and 66-69 as obvious based on the combination of U.S. Patent No. 5,229,644 to Wakai or JP 63-279228 to Nishiki and U.S. Patent No. 5,627,404 to Takenouchi, either alone or in combination with U.S. Patent No. 5,821,137 to Wakai. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 39, 43, 47, 51 and 55 have been amended to recite a pair of resinous substrates facing each other

and each having an uneven surface. Independent claims 40, 44, 48, 52 and 56 have been amended to recite a pair of flexible substrates facing each other and each having an uneven surface. For the reasons provided below, Wakai '644 or Nishiki and Takenouchi, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action concedes that Wakai '644 or Nishiki "does not specifically disclose resinous substrate having an uneven surface" (e.g. pages 3 and 4, Paper No. 20070525) and that Wakai '644 "does not specifically disclose flexible substrate having an uneven surface" (e.g. page 6, Id.). The Official Action relies on Takenouchi to allegedly teach "a resinous substrate (10) ... having an uneven surface" (e.g. page 3, Id.). However, Takenouchi appears to teach that only one resinous substrate 10 has an uneven surface. Takenouchi does not teach or suggest a pair of resinous substrates each having an uneven surface. Therefore, the Applicant respectfully submits that Wakai '644 or Nishiki and Takenouchi, either alone or in combination, do not teach or suggest a pair of resinous substrates facing each other and each having an uneven surface.

Regarding independent claims 47 and 48, the Official Action asserts that Wakai '137 teaches a microcrystalline silicon (e.g. page 7, Id.). The Applicant respectfully disagrees and traverses the assertions in the Official Action. Wakai '137 does not appear to teach or suggest a microcrystalline silicon.

Since Wakai '644 or Nishiki and Takenouchi do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Futhermore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Wakai '644 or Nishiki and Takenouchi or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial

burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be modified in the manner asserted in the Official Action, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

As noted above, the Official Action concedes that Wakai '644 or Nishiki does not specifically disclose a resinous or flexible substrate having an uneven surface" (e.g. pages 3, 4 and 6, Paper No. 20070525) and relies on Takenouchi to allegedly teach these features (Id.). The Official Action asserts that "one having ordinary skill in the art at the time the invention was made would be motivated to modify Wakai's [or Nishiki's] device by incorporating resinous substrates" and asserts that the motivation "would be to provide substrates with a low cost and readily available material as compared to glass substrate" (e.g., pages 3-6, Id.). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

As mentioned in the present specification, a resinous substrate has poor heat resistance (page 2, lines 26-30). Accordingly, when using a resinous substrate, it is preferable form the TFT on the resinous substrate using a lower temperature process. When forming an interlayer insulating layer comprising silicon oxide or silicon nitride

over a resinous substrate by PCVD, the resinous substrate is damaged because the substrate is, in general, heated at a temperature of 300°C or more. On the other hand, the resinous interlayer insulating layer of the present invention (*i.e.*, a layer comprising a resinous material in claims 39, 43, 47, 51 and 55) can be formed by a coating method at a lower temperature than PCVD without damaging the resinous substrate. Thus, the resinous interlayer insulating layer is more advantageous than a resinous substrate in view of TFT processes. On the other hand, it appears that neither Wakai '644, Nishiki nor Takenouchi teaches or suggests the materiality of a resinous interlayer insulating layer when forming a TFT over a resinous substrate.

In addition, claims 39, 43, 47, 51 and 55 recite that a TFT is interposed between a resinous substrate and a layer comprising a resinous material. The Applicant respectfully submits that this configuration is advantageous in that negative effects to the TFT caused by bending the device can be reduced since the layer comprising a resinous material has higher flexibility than that of other insulating materials, such as inorganic insulating materials. On the other hand, it appears that neither Wakai '644, Nishiki nor Takenouchi teaches or suggests the advantage of a TFT interposed between a resinous substrate and a layer comprising a resinous material.

As such, it is not clear why one of ordinary skill in the art at the time of the present invention would have been motivated to combine the features of Wakai '644 or Nishiki and Takenouchi to necessarily form a TFT interposed between a resinous substrate and a layer comprising a resinous material.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Wakai '644 or Nishiki and Takenouchi or to combine reference teachings to achieve the claimed invention.

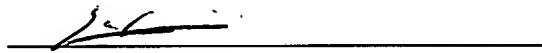
In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed

invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,


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